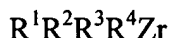


WHAT IS CLAIMED:

1 Claim 1. A propylene polymer composition which is the product obtained by the
2 steps comprising:

3 polymerizing propylene in the presence of an olefin polymerization catalyst
4 comprising

5 (i) (a) a zirconocene compound represented by the following formula



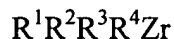
7 wherein two of R^1 , R^2 , R^3 and R^4 are each a substituted indenyl group substituted with
8 aryl group, and linked together through a dimethylsilylene; and remaining two of R^1 , R^2 ,
9 R^3 and R^4 are each a halogen atom, and

10 (ii) at least one organoaluminum oxy-compound,

11 to prepare a propylene polymer (A1) having a melt flow rate (MFR), as measured
12 according to ASTM D-1238, at 230°C under a load of 2.16 kg, of 0.01 to 30 g/10 min.;
13 and a molecular weight distribution (Mw/Mn), as measured by gel permeation
14 chromatography (GPC), of 2 to 3;

15 polymerizing propylene in the presence of an olefin polymerization catalyst
16 comprising

17 (i) (a) a zirconocene compound represented by the following formula



19 wherein two of R^1 , R^2 , R^3 and R^4 are each a substituted indenyl group substituted with
20 aryl group, and linked together through a dimethylsilylene; and the remaining two of R^1 ,
21 R^2 , R^3 and R^4 are each a halogen atom, and

22 (ii) at least one organoaluminum oxy-compound,

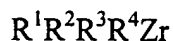
23 to prepare a propylene polymer (A2) having a melt flow rate (MFR), as measured
24 according to ASTM D-1238, at 230°C under a load of 2.16 kg, of 30 to 1000 g/10 min.;
25 and a molecular weight distribution (Mw/Mn), as measured by gel permeation
26 chromatography (GPC), of 2 to 4; wherein the ratio ((A2)/(A1)) of the MFR of said

27 propylene polymer (A2) to the MFR of said propylene polymer (A1) is not less than 30;
28 and
29 mixing 10 to 90% by weight of the propylene polymer (A1) and 10 to 90% by
30 weight of the propylene polymer (A2).

1 Claim 2. A propylene polymer composition which is the product obtained by a
2 multi-stage polymerization method comprising the steps of:

3 polymerizing propylene in the presence of an olefin polymerization catalyst
4 comprising

5 (i) (a) a zirconocene compound represented by the following formula



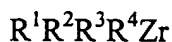
7 wherein two of R^1 , R^2 , R^3 and R^4 are each a substituted indenyl group substituted with
8 aryl group, and linked together through dimethylsilylene; and the remaining two of R^1 ,
9 R^2 , R^3 and R^4 are each a halogen atom, and

10 (ii) at least one organoaluminum oxy-compound,

11 to prepare a propylene polymer (A1) having a melt flow rate (MFR), as measured
12 according to ASTM D-1238, at 230°C under a load of 2.16 kg, of 0.01 to 30 g/10 min.;
13 and a molecular weight distribution (Mw/Mn), as measured by gel permeation
14 chromatography (GPC), of 2 to 3;

15 polymerizing propylene in the presence of an olefin polymerization catalyst
16 comprising

17 (i) (a) a zirconocene compound represented by the following formula



19 wherein two of R^1 , R^2 , R^3 and R^4 are each a substituted indenyl group substituted with
20 aryl group, and linked together through dimethylsilylene; and the remaining two of R^1 ,
21 R^2 , R^3 and R^4 are each a halogen atom, and

24 (ii) at least one organoaluminum oxy-compound,
 25 to prepare a propylene polymer (A2) having a melt flow rate (MFR), as measured
 26 according to ASTM D-1238, at 230°C under a load of 2.16 kg, of 30 to 1000 g/10 min.;
 27 and a molecular weight distribution (Mw/Mn), as measured by gel permeation
 28 chromatography (GPC), of 2 to 4; wherein the ratio ((A2)/(A1)) of the MFR of said
 29 propylene polymer (A2) to the MFR of said propylene polymer (A1) is not less than 30;
 30 and
 31 wherein the steps of preparing the propylene polymers (A1) and (A2) are
 32 conducted in an arbitrary order; and the amount of the propylene polymer (A1) is 10 to
 33 90% by weight, the amount of the propylene polymer (A2) is 10 to 90% by weight.

1 Claim 3. A propylene polymer composition which is the product obtained by the
 2 steps comprising:
 3 polymerizing propylene in the presence of an olefin polymerization catalyst
 4 comprising
 5 (d) a solid titanium catalyst compound, and
 6 (e) an organoaluminum compound catalyst component,
 7 to prepare a propylene polymer (A3) having a melt flow rate (MFR), as measured
 8 according to ASTM D-1238, at 230°C under a load of 2.16 kg, of 0.01 to 30 g/10 min.;
 9 and a molecular weight distribution (Mw/Mn), as measured by gel permeation
 10 chromatography (GPC), of 4 to 15;

11 polymerizing propylene in the presence of an olefin polymerization catalyst
 12 comprising

13 (i) (a) a zirconocene compound represented by the following formula

14
$$R^1R^2R^3R^4Zr$$

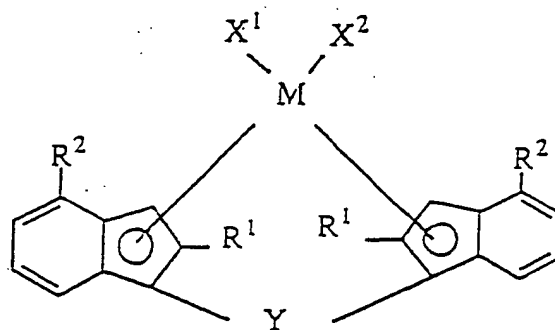
15 wherein two of R^1 , R^2 , R^3 and R^4 are each a substituted indenyl group substituted with
 16 aryl group, and linked together through dimethylsilylene and the remaining two of R^1 , R^2 ,
 17 R^3 and R^4 are each a halogen atom, and

18 (ii) at least one organoaluminum oxy-compound,
 19 to prepare a propylene polymer (A2) having a melt flow rate (MFR), as measured
 20 according to ASTM D-1238, at 230°C under a load of 2.16 kg, of 30 to 1000 g/10 min.;
 21 and a molecular weight distribution (Mw/Mn), as measured by gel permeation
 22 chromatography (GPC), of 2 to 4; and
 23 mixing 10 to 90% by weight of a propylene polymer (A3) and 10 to 90% by
 24 weight of the propylene polymer (A2).

1 Claim 4. The propylene polymer composition as claimed in claim 1 or 2, which
 2 further comprises, blended therewith, 3 to 30 parts by weight, based on 100 parts by
 3 weight of total amount of propylene polymers (A1) and (A2), of a soft polymer (B) which
 4 is a (co)polymer of ethylene or an α -olefin of 3 to 20 carbon atoms, and having MFR, as
 5 measured at 190°C under a load of 2.16 kg, of 0.01 to 100 g/10 min., and a crystallinity,
 6 as measured by x-ray diffractometry, of less than 30%.

1 Claim 5. The propylene polymer composition as claimed in claim 3, which
 2 further comprises, blended therewith, 3 to 30 parts by weight, based on 100 parts by
 3 weight of total amount of propylene polymers (A3) and (A2), of a soft polymer (B) which
 4 is a (co)polymer of ethylene or an α -olefin of 3 to 20 carbon atoms, and having MFR, as
 5 measured at 190°C under a load of 2.16 kg, of 0.01 to 100 g/10 min., and a crystallinity,
 6 as measured by x-ray diffractometry, of less than 30%.

1 Claim 6. The propylene polymer composition according to claim 1 wherein the
 2 zirconocene compound (i)(a) used to prepare propylene polymer (A1) and propylene
 3 polymer (A2) is a compound represented by the formula (I):



(I)

wherein M represents a zirconium atom;

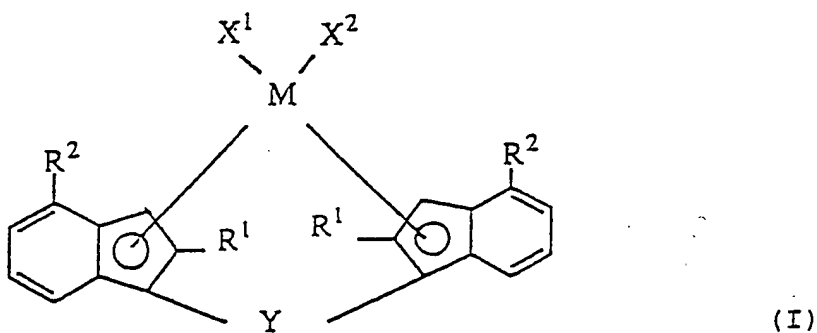
X^1 and X^2 each represent a halogen atom;

R^1 represents an alkyl group of from 2 to 6 carbon atoms;

R^2 represents an aryl group having from 6 to 16 carbon atoms; and

Y represents dimethylsilylene.

Claim 7. The propylene polymer composition according to claim 2 wherein the zirconocene compound (i)(a) used to prepare propylene polymer (A1) and propylene polymer (A2) is a compound represented by the formula (I):



wherein M represents a zirconium atom;

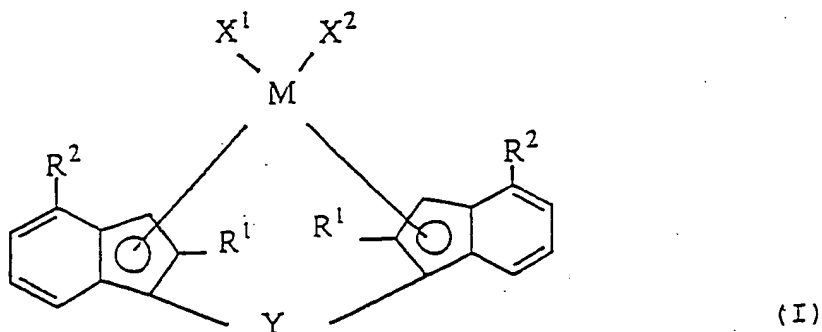
X^1 and X^2 each represent a halogen atom;

R^1 represents an alkyl group of from 2 to 6 carbon atoms;

R^2 represents an aryl group having from 6 to 16 carbon atoms; and

Y represents dimethylsilylene.

Claim 8. The propylene polymer composition according to claim 3 wherein the zirconocene compound (i)(a) is a compound represented by the formula (I):



wherein M represents a zirconium atom;

X^1 and X^2 each represent a halogen atom;

R^1 represents an alkyl group of from 2 to 6 carbon atoms;

R^2 represents an aryl group having from 6 to 16 carbon atoms; and

Y represents dimethylsilylene.

Claim 9. The propylene polymer composition according to claim 1 wherein the zirconocene compound (i)(a) used to prepare propylene polymer (A1) and propylene polymer (A2) is rac-dimethylsilyl-bis(2-ethyl-4-phenylindenyl)zirconium dichloride.

Claim 10. The propylene polymer composition according to claim 2 wherein the zirconocene compound (i)(a) used to prepare propylene polymer (A1) and propylene polymer (A2) is rac-dimethylsilyl-bis(2-ethyl-4-phenylindenyl)zirconium dichloride.

Claim 11. The propylene polymer composition according to claim 3 wherein the zirconocene compound (i)(a) is rac-dimethylsilyl-bis(2-ethyl-4-phenylindenyl)zirconium dichloride.

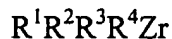
1 Claim 12. A propylene polymer composition comprising a physical or chemical
2 blended mixture of from 10 to 90% by weight of first propylene polymer (A1) and from
3 10 to 90% by weight of second propylene polymer (A2),

4 wherein polymer (A1) has a melt flow rate (MFR), measured according to ASTM
5 D-1238, at 230°C, under a load of 2.16 kg, of 0.01 to 30 g/10 min; and a molecular
6 weight distribution (Mw/Mn), measured by gel permeation chromatography (GPC), of 2
7 to 3; and

8 wherein propylene polymer (A2) has a melt flow rate (MFR), measured according
9 to ASTM D-1238, at 230°C, under a load of 2.16 kg, of 30 to 1000 g/10min; and a
10 molecular weight distribution (Mw/Mn), measured by gel permeation chromatography
11 (GPC), of 2 to 4; and

12 wherein propylene polymer (A1) and propylene polymer (A2) are each obtained
13 by polymerizing propylene in the presence of an olefin polymerization catalyst
14 comprising

15 (i)(a) a zirconocene compound represented by the formula



17 wherein R^1 and R^2 each represent indenyl substituted with an alkyl group and an
18 aryl group;

19 R^3 and R^4 each represent a halogen atom;

20 and wherein the two substituted indenyl groups are linked to each other through
21 dimethylsilylene; and

22 (ii) at least one organoaluminum oxy-compound; and

23 wherein the ratio of the MFR of propylene polymer (A2) to the MFR of propylene
24 polymer (A1) is not less than 30.

4 propylene polymer (A2) has a crystallinity of not less than 40% and contains not
5 more than 5 mole% of another olefin.

1 Claim 14. The propylene polymer composition according to claim 13 wherein
2 propylene polymer (A1) is a propylene homopolymer.

1 Claim 15. The propylene polymer composition according to claim 14 wherein
2 propylene polymer (A2) is a propylene homopolymer.

1 Claim 16. The propylene polymer composition according to claim 13 wherein
2 propylene polymer (A2) is a propylene homopolymer.

1 Claim 17. The propylene polymer composition according to claim 13 which
2 comprises from 30 to 70% by weight of propylene polymer (A1) and from 30 to 70% by
3 weight of propylene polymer (A2).